



## Cape Preston WA11.03.01

### Regional Setting

The dominant regional processes are the sub-tropical arid climate (Trade winds), El Nino Southern Oscillation (driving sea-level variability), mega to meso semi-diurnal tides, waves dominantly seas, episodic high river sediment discharges, mixed carbonate-terrigenous sediments, and tidal sediment transport.

This coastline is susceptible to regional hazards, including tropical cyclones, storm surges and river flooding.

This coastal lowlands compartment extends from James Point to Cape Preston.

### Justification of sensitivity

The sensitivity rating is a 3 as the shoreline is stable and likely to remain stable. Streams discharge water and sediment into low lying coast in the southern embayed part of the compartment. This sector may have a higher sensitivity rating (4) due to its unconsolidated features. The larger northern sector is mainly rocky coast and more resilient to erosion.

### Other comments

Common landform assemblages:

This is an area of geologic change, from dominantly unconsolidated sediments of the western compartments to igneous rocks comprising the spine of the Cape Preston tombolo. Much of the coast is perched on rock pavement or platform. In the south western part of the embayment, a narrow chenier ridge has formed landward of the mangroves. Tidal flats over 1km wide are fringed by mangrove vegetation and merge with broad tidal flats, particularly in the southern part of the embayment. The central



part of the embayment, where rocks are close to the shore, has narrow tidal flats and a sandy shore backed to landward by a low foredune plain.

Geomorphological features include islands, pro delta, cheniers and mudflats.

This compartment has a WNW aspect.

### **Confidence in sources**

Moderate confidence: Coastal landforms are well described in available management literature, and sediment movement along parts of the rocky coast has been described. However, the sediment budget for the coast is not well known.

Interpretation of landform assemblages from satellite imagery, aerial photography, available literature and site visits.

### **Additional information (links and references)**

Australian Beach Safety & Management Program (ABSAMP) database of over 12,000 beaches can be accessed at [http://www.ozcoasts.gov.au/coastal/beach\\_intro.jsp](http://www.ozcoasts.gov.au/coastal/beach_intro.jsp) (also see Surf Life Saving site)

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